Abstract: P4791
Performance of the HAS-BLED, ATRIA, and PRECISE-DAPT Bleeding Risk Scores in Atrial Fibrillation Patients Using Antiplatelet Agents or Oral Anticoagulants

Authors:
SY Choi¹, MH Kim², KM Lee², CH Jang², JY Choi², ¹Daeu Health College, Department of Biomedical Laboratory Science - Daegu - Korea (Republic of), ²Dong-A University, Department of Cardiology, College of Medicine - Busan - Korea (Republic of),

Topic(s):
Atrial Fibrillation - Clinical

Citation:
Background: Various bleeding risk scores have been proposed to assess the risk of bleeding in atrial fibrillation (AF) patients undergoing anticoagulation. PRECISE DAPT score has been developed to assess the out-of-hospital bleeding risk in patients receiving dual antiplatelet therapy (DAPT). Our objective was to compare the predictive performance between the HAS-BLED (Hypertension, Abnormal Renal/Liver Function, Stroke, Bleeding History or Predisposition, Labile International Normalized Ratio, Elderly, Drugs/Alcohol), ATRIA (Anticoagulation and Risk Factors in Atrial Fibrillation), and PRECISE-DAPT (Predicting Bleeding Complication in Patients Undergoing Stent Implantation and Subsequent Dual Antiplatelet therapy) score in AF patients using antiplatelet agents or anticoagulants

Methods: We recruited 1,114 consecutive AF patients (51% male; median age, 71 years) receiving antiplatelet agents or oral anticoagulants from January 2014 through December 2018. Major bleeding was defined as according to the Bleeding Academic Research Consortium (BARC) criteria (type 3 or 5: hemodynamic instability, need for transfusion, drop in hemoglobin = 3 g, and intracranial, intraocular or fatal bleeding). The performance of risk scores were assessed by C-statistic.

Results: Bleeding events occurred in 135 patients (12.1%) during 30 days, and 72 patients (6.5%) from 30 days till 1-year follow-up. Based on the C-statistic, PRECISE-DAPT score (AUC: 0.72, 95% CI: 0.69-0.75) had a good performance, significantly better than HAS-BLED (AUC: 0.64, 95% CI: 0.61-0.67) (p = 0.008) or ATRIA scores (AUC: 0.57, 95% CI: 0.54-0.60) (p < 0.001) for 30-days bleeding prediction. Also, PRECISE-DAPT score had a good C-statistic (AUC: 0.72, 95% CI: 0.69-0.75) for 1-year bleeding events compared with HAS-BLED (AUC: 0.64, 95% CI: 0.60-0.67) (p=0.02) or ATRIA (AUC: 0.61, 95% CI: 0.58-0.65) (p=0.01).

Conclusions: The PRECISE-DAPT score has been used for assessing bleeding events during DAPT. Also, the PRECISE-DAPT score predicted bleedings better than HAS-BLED or ATRIA scores in AF patients. So, the PRECISE-DAPT score may be considered as bleeding risk score during DAPT or oral anticoagulation in clinical practice.
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